

CLAIMS

1. A network conferencing system in which an output electronic equipment for presenting the contents of presentation, a plurality of attendant electronic equipments operated by users attending a conference, and a conference management server connected with the output electronic equipment and the attendant electronic equipments so as to transmit and receive information to and from the output electronic equipment and the attendant electronic equipments, are connected via a communication network,

each of the attendant electronic equipments comprising:

an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the conference management server;

a presentation function for presenting the contents of presentation by using the output electronic equipment;

a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment;

an authentication function for carrying out authentication of attendance of each electronic equipment connected to the communication network, at a conference;

an equipment management function for managing the state of each electronic

equipment connected to the communication network;

a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function; and

a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function,

wherein one of the authority to be a presenter terminal having the presentation function, the authority to be a chairman terminal having the authentication function, the equipment management function and the proceedings control function, and the authority to be an attendant terminal having the presentation contents browsing function, is acquired.

2. A conference management server connected with an output electronic equipment for presenting the contents of presentation and a plurality of attendant electronic equipments via a communication network, each of the attendant electronic equipments comprising an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the communication network, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out

authentication of attendance of the other attendant electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function,

wherein processing to give one of the authority to be a presenter terminal having the presentation function, the authority to be a chairman terminal having the authentication function, the equipment management function and the proceedings control function, and the authority to be an attendant terminal having the presentation contents browsing function is carried out on the basis of conference attendance requests from the attendant electronic equipments.

3. An attendant electronic equipment operated by a user attending a conference for transmitting/receiving information via a communication network to/from a conference management server which is connected with an output electronic equipment for presenting the contents of presentation and which transmits/receives information to/from the output electronic equipment via the communication network, the attendant electronic equipment comprising:

an information input/output function for inputting and outputting information

from and to the other attendant electronic equipments and the output electronic equipment via the conference management server;

a presentation function for presenting the contents of presentation by using the output electronic equipment;

a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment;

an authentication function for carrying out authentication of attendance of each electronic equipment connected to the communication network, at a conference;

an equipment management function for managing the state of each electronic equipment connected to the communication network;

a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function; and

a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function,

wherein one of the authority to be a presenter terminal having the presentation function, the authority to be a chairman terminal having the authentication function, the equipment management function and the proceedings control function, and the authority to be an attendant terminal having the presentation contents browsing function, is acquired.

4. A network conferencing system in which an output electronic equipment for presenting the contents of presentation, a plurality of attendant electronic equipments operated by users attending a conference, and a conference management server connected with the output electronic equipment and the attendant electronic equipments so as to transmit and receive information to and from the output electronic equipment and the attendant electronic equipments, are connected via a communication network,

each of the attendant electronic equipments comprising an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the conference management server, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation

of the proceedings by using the contents of presentation presented by the presentation function,

wherein when the authority to be a chairman terminal having the information input/output function, the authentication function, the equipment management function, the display function and the proceedings control function is provided,

the authentication function obtains conference attendance requests including personal data related to the other attendant electronic equipments from the conference management server and prepares attendance permission information or attendance non-permission information for the other attendant electronic equipments in accordance with the operation by the user based on the personal data.

5. The network conferencing system as claimed in claim 4, wherein the authentication function is to prepare attendance permission information which enables selection of icon displays of the other attendant electronic equipments permitted to attend the conference, and attendance non-permission information which makes it impossible to select icon displays of the other attendant electronic equipments not permitted to attend the conference.

6. The network conferencing system as claimed in claim 4, wherein conference attendance requests including the personal information to request for attendance at the conference from the other attendant electronic equipments are inputted to the information input/output function via the conference management server, and

the authentication function is to prepare attendance permission information for

changing the display mode of the icon displays of the other electronic equipments when the attendance is permitted in accordance with the operation by the user, in response to the conference attendance requests inputted to the information input/output function.

7. The network conferencing system as claimed in claim 4, wherein the display function is to include icon displays of the other attendant electronic equipments existing in the communication network, in a first screen area, and to include icon displays of the other attendant electronic equipments existing outside the communication network, in a second screen area.

8. The network conferencing system as claimed in claim 7, wherein the display function is to display location attribute information indicating the presence of each of the electronic equipments in the communication network, in the first screen area, and to display location attribute information indicating the presence of each of the electronic equipments outside the communication network, in the second screen area.

9. The network conferencing system as claimed in claim 4, wherein conference leaving requests to request for leaving the conference from the other attendant electronic equipments are inputted to the information input/output function via the conference management server, and

the display function is to change the display mode of icon displays related to the other attendant electronic equipments which outputted the conference leaving requests, in response to the conference leaving requests inputted to the information input/output

function.

10. An attendance authentication method for a network conferencing system in which an output electronic equipment for presenting the contents of presentation, a plurality of attendant electronic equipments, and a conference management server connected with the output electronic equipment and the attendant electronic equipments so as to transmit and receive information to and from the output electronic equipment and the attendant electronic equipments, are connected via a communication network, each of the attendant electronic equipments comprising an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the communication network, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation

of the proceedings by using the contents of presentation presented by the presentation function,

wherein the authentication function of a chairman terminal having the information input/output function, the authentication function, the equipment management function, the display function and the proceedings control function is

to input conference attendance requests including personal data related to the other attendant electronic equipments from the other attendant electronic equipments via the conference management server and

to prepare attendance permission information or attendance non-permission information for the other attendant electronic equipments in accordance with the operation by the user based on the personal data, thus authenticating the attendance.

11. The attendance authentication method as claimed in claim 10, wherein the authentication function is to prepare attendance permission information which enables selection of icon displays of the other attendant electronic equipments permitted to attend the conference, and attendance non-permission information which makes it impossible to select icon displays of the other attendant electronic equipments not permitted to attend the conference, thus authenticating the attendance.

12. The attendance authentication method as claimed in claim 10, wherein attendance permission information for changing the display mode of icon displays of the other electronic equipments when the attendance is permitted in accordance with the operation by the user is prepared.

13. The attendance authentication method as claimed in claim 10, wherein after the attendance is authenticated,

icon displays of the other attendant electronic equipments existing in the communication network are included in a first screen area and icon displays of the other attendant electronic equipments existing outside the communication network are included in a second screen area.

14. The attendance authentication method as claimed in claim 13, wherein after the attendance is authenticated,

location attribute information indicating the presence of each of the electronic equipments in the communication network is displayed in the first screen area and location attribute information indicating the presence of each of the electronic equipments outside the communication network is displayed in the second screen area.

15. The attendance authentication method as claimed in claim 10, wherein after the attendance is authenticated,

when conference leaving requests to request for leaving the conference from the other attendant electronic equipments are inputted via the conference management server,

the display mode of icon displays related to the other attendant electronic equipments which outputted the conference leaving requests is changed in response to the conference leaving requests.

16. A conference management server connected with an output electronic

equipment for presenting the contents of presentation and a plurality of attendant electronic equipments via a communication network, each of the attendant electronic equipments comprising an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the communication network, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other attendant electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function, the conference management server comprising:

input/output means for outputting a conference attendance request including personal data related to the attendant electronic equipment from the attendant electronic equipment to the other attendant electronic equipments, and inputting the result of attendance authentication in accordance with the conference attendance

request; and

attendance management means for preparing an attendance information file for managing the plurality of attendant electronic equipments attending a conference by using the personal data and the result of attendance authentication obtained by the input/output means, and preparing attendant equipment display information for displaying, as an icon, the personal data of each attendant electronic equipment managed as the attendance information file in accordance with the result of attendance authentication.

17. The conference management server as claimed in claim 16, wherein the attendance management means updates the contents of the attendance information file on the basis of attendance permission information or attendance non-permission information from the attendant electronic equipment having the authority as a chairman terminal having the information input/output function, the authentication function, the equipment management function, the display function and the proceedings control function.

18. The conference management server as claimed in claim 16, wherein the attendance management means outputs the prepared attendant equipment display information to the attendant electronic equipment connected with the communication network.

19. The conference management server as claimed in claim 17, wherein the attendance management means prepares attendant equipment display information

which enables selection of icon displays of the other attendant electronic equipments permitted to attend the conference on the basis of the attendance permission information and which makes it impossible to select icon displays of the other attendant electronic equipments not permitted to attend the conference on the basis of the attendance non-permission information.

20. The conference management server as claimed in claim 17, wherein the attendance management means is supplied with conference attendance requests including the personal data to request for attendance at the conference from the other attendant electronic equipments, and prepares attendant equipment display information for changing the display mode of icon displays on the basis of the attendance permission information from the chairman terminal in accordance with the conference attendance requests.

21. The conference management server as claimed in claim 16, wherein the attendance management means prepares attendant equipment display information including icon displays of the other attendant electronic equipments existing in the communication network, in a first screen area, and including icon displays of the other attendant electronic equipments existing outside the communication network, in a second screen area.

22. The conference management server as claimed in claim 16, wherein the attendance management means prepares attendant equipment display information for displaying location attribute information indicating the presence of each of the

electronic equipments in the communication network, in the first screen area, and displaying location attribute information indicating the presence of each of the electronic equipments outside the communication network, in the second screen area.

23. The conference management server as claimed in claim 16, wherein the attendance management means prepares attendant equipment display information for changing the display mode of icon displays related to the other attendant electronic equipments which outputted conference leaving requests in response to input of the conference leaving requests to request for leaving the conference from the other attendant electronic equipments.

24. An attendance authentication method for a conference management server connected with an output electronic equipment for presenting the contents of presentation and a plurality of attendant electronic equipments via a communication network, each of the attendant electronic equipments comprising an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the communication network, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other attendant electronic equipments at a conference, an equipment

management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function, the method comprising the steps of:

inputting a conference attendance request including personal data related to the attendant electronic equipment from the attendant electronic equipment;

outputting the conference attendance request to the other attendant electronic equipments;

inputting the result of attendance authentication in accordance with the conference attendance request;

preparing an attendance information file for managing the plurality of attendant electronic equipments attending a conference by using the personal data and the result of attendance authentication; and

preparing attendant equipment display information for displaying, as an icon, the personal data of each attendant electronic equipment managed as the attendance information file in accordance with the result of attendance authentication.

25. The attendance authentication method as claimed in claim 24, wherein attendance permission information or attendance non-permission information from the

attendant electronic equipment having the authority as a chairman terminal having the information input/output function, the authentication function, the equipment management function, the display function and the proceedings control function is inputted, and

the contents of the attendance information file are updated.

26. The attendance authentication method as claimed in claim 24, wherein the prepared attendant equipment display information is outputted to the attendant electronic equipment connected with the communication network.

27. The attendance authentication method as claimed in claim 25, wherein attendant equipment display information which enables selection of icon displays of the other attendant electronic equipments permitted to attend the conference on the basis of the attendance permission information from the chairman terminal and which makes it impossible to select icon displays of the other attendant electronic equipments not permitted to attend the conference on the basis of the attendance non-permission information is prepared.

28. The attendance authentication method as claimed in claim 25, wherein conference attendance requests including the personal data to request for attendance at the conference from the other attendant electronic equipments are inputted, and

attendant equipment display information for changing the display mode of icon displays is prepared on the basis of the attendance permission information from the chairman terminal in accordance with the conference attendance requests.

29. The attendance authentication method as claimed in claim 24, wherein attendant equipment display information including icon displays of the other attendant electronic equipments existing within the communication network, in a first screen area, and including icon displays of the other attendant electronic equipments existing outside the communication network, in a second screen area, is prepared.

30. The attendance authentication method as claimed in claim 24, wherein attendant equipment display information for displaying location attribute information indicating the presence within the communication network, in the first screen area, and displaying location attribute information indicating the presence outside the communication network, in the second screen area, is prepared.

31. The attendance authentication method as claimed in claim 24, wherein conference leaving requests to request for leaving the conference from the other attendant electronic equipments are inputted, and

attendant equipment display information for changing the display mode of icon displays related to the other attendant electronic equipments which outputted conference leaving requests is prepared.

32. An attendant electronic equipment operated by a user attending a conference for transmitting/receiving information via a communication network to/from a conference management server which is connected with an output electronic equipment for presenting the contents of presentation and which transmits/receives information to/from the output electronic equipment via the communication network,

the attendant electronic equipment comprising

an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the conference management server, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function,

wherein when the authority to be a chairman terminal having the information input/output function, the authentication function, the equipment management function, the display function and the proceedings control function is provided,

the authentication function obtains conference attendance requests including personal data related to the other attendant electronic equipments from the conference

management server and prepares attendance permission information or attendance non-permission information for the other attendant electronic equipments in accordance with the operation by the user based on the personal data.

33. A network conferencing system in which an output electronic equipment for presenting the contents of presentation, a plurality of attendant electronic equipments operated by users attending a conference, and a conference management server connected with the output electronic equipment and the attendant electronic equipments so as to transmit and receive information to and from the output electronic equipment and the attendant electronic equipments, are connected via a communication network. In the network conferencing system,

each of the attendant electronic equipments comprising an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the communication network, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other

attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function,

wherein when the presentation function transfers the contents of presentation to the output electronic equipment or the attendant electronic equipment via the conference management server, the contents of presentation and supplementary contents related to the contents of presentation are displayed by the display function.

34. The network conferencing system as claimed in claim 33, wherein the presentation function transfers only the data related to the contents of presentation to the output electronic equipment or the attendant electronic equipment.

35. A presentation method for a network conferencing system in which an output electronic equipment for presenting the contents of presentation, a plurality of attendant electronic equipments operated by users attending a conference, and a conference management server connected with the output electronic equipment and the attendant electronic equipments so as to transmit and receive information to and from the output electronic equipment and the attendant electronic equipments, are connected via a communication network, each of the attendant electronic equipments comprising an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output

electronic equipment via the communication network, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function,

wherein when transferring the contents of presentation to the output electronic equipment or the attendant electronic equipment via the conference management server by the presentation function,

the contents of presentation and supplementary contents related to the contents of presentation are displayed by the display function.

36. The presentation method as claimed in claim 35, wherein only the data related to the contents of presentation is transferred to the output electronic equipment or the attendant electronic equipment.

37. An attendant electronic equipment operated by a user attending a conference for transmitting/receiving information via a communication network to/from a conference management server which is connected with an output electronic equipment for presenting the contents of presentation and which transmits/receives information to/from the output electronic equipment via the communication network, the attendant electronic equipment comprising

an information input/output function for inputting and outputting information from and to the other attendant electronic equipments and the output electronic equipment via the communication network, a presentation function for presenting the contents of presentation by using the output electronic equipment, a presentation contents browsing function for browsing the contents of presentation presented by the presentation function of the other attendant electronic equipments using the output electronic equipment, an authentication function for carrying out authentication of attendance of the other electronic equipments at a conference, an equipment management function for managing the state of each electronic equipment connected to the communication network, a display function for displaying, as icons, the other attendant electronic equipments with their attendance authenticated by the authentication function and the electronic equipment managed by the equipment management function, and a proceedings control function for controlling preparation of the proceedings by using the contents of presentation presented by the presentation function,

wherein when the presentation function transfers the contents of presentation to the output electronic equipment or the attendant electronic equipment via the conference management server, the contents of presentation and supplementary contents related to the contents of presentation are displayed by the display function.

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